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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,870	10/14/2001	Jeffrey C. Hawkins	21495-05943	3752

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EXAMINER

EISEN, ALEXANDER

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 12/10/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/977,870

Applicant(s)

HAWKINS ET AL.

Examiner

Alexander Eisen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 7, 8, 13-16, 22, 23, 25, 28, 34, 35, 37 and 41 are rejected under 35

U.S.C. 102(e) as being anticipated by Griffin et al., (“Griffin”), US 6,489,950 B1.

With respect to claim 1, Griffin discloses a hand-held electronic device with symbol input device and computer implemented method for entering an alternative symbol including receiving input requesting a first list of one or more alternative symbols and displaying one or more alternative symbols on display device (col. 4, lines 13-23; also col. 9, line 50 - col. 10, line).

As to claims 13, 16, 28 and 35, Griffin teaches a computing device for providing an alternate symbol and comprising a display (500; FIG. 1), a memory (computer usable medium, 600, 700), a processor (400), a user input device for indicating a symbol (keyboard 900), and software (executable instructions; 910 in FIG. 6;) stored into memory for providing an alternate symbol associated with base symbol (see discussion above related to claim 1).

As to claims 7, 22, 25, 34 and 41, characters are displayed in order, each following replacing the preceding character, and therefore the character displayed first (a base one) will be replaced by the next.

As to claims 8, 23 and 37, Griffin teaches displaying a short symbol sequence (col. 10, line 48 - col. 11, line 9).

As to claim 14, the device is a hand-held computing device.

As to claim 15, the input device includes a hardware key (901-904).

As to claim 28, Griffin teaches computer usable medium comprising instruction for execution by a processor (operating system 910 and specialized application software 915).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 4, 5, 9, 10, 11, 17, 19-20, 24-26, 32, 36, 38, 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griffin in view of Laakkonen, US 6,043,760.

Griffin discloses a hand-held electronic device with symbol input device and computer implemented method for entering an alternative symbol including receiving input requesting a first list of one or more alternative symbols and displaying one or more alternative symbols on display device.

Griffin does not disclose displaying a list of more than one alternative symbols in descending order of frequency of selection for each symbol based on pre-determined statistics.

With respect to claims 2, 4, 17, 31 and 38 Laakkonen teaches key input method, wherein alternative character sets associated with keys are arranged and stored into memory according

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user preferences or their frequency of use (col. 3, lines 8-23) for reducing the number of required keystrokes when entering data.

It would have been obvious to one of ordinary skill in the art at the time when the invention was made that the list of alternative symbols displayed in the method of Griffin for following selection will be arranged in order analogous to that of Laakkonen, i.e. based on predetermined statistics or user's preference, because as taught by Laakkonen it would facilitate entering selected characters.

As to claims 5, 19-20, 31, 32 and 39 Laakkonen teaches a memory element, which keeps count (indicator) of the characters entered in the apparatus and dynamically arranged the characters in the memory in such order that most frequently used character is selected first, when the key is pressed.

As to claims 9, 10, 11, 24-26 all symbols are of the same type, i.e. characters (including accented type), and characters associates with each other as being a part of some alphabets (Laakkonen; col. 3, lines 33-35).

5. Claims 6, 21, 33 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griffin in view of Davis et al., ("Davis"), US 5,485,373.

Griffin discloses a hand-held electronic device with symbol input device and computer implemented method for entering an alternative symbol including receiving input requesting a first list of one or more alternative symbols and displaying one or more alternative symbols on display device.

Griffin does not provide a teaching that displayed list of alternative symbols can be in a form of a pop-up menu.

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Davis teaches language-sensitive text searching system, which is performing on a string of characters and based on pre-defined character precedence, wherein upon request a choice of characters is displayed as a pop-up menu, wherein the characters are displayed on predefined hierarchical order (see col. 15, lines 3-22).

It would have been obvious to one of ordinary skill in the art at the time when the invention was made that choice of alternate symbols in the device of Griffin can be presented in a form of pop-up menu taught by Davis, because of the advantage that the pop-up menu would show choices at a glance and will allow a user to scroll in right direction rather than go through all sequence by scrolling and displaying alternate symbols one at a time, as taught by Griffin (col. 9, lines 52-65).

6. Claims 3, 12-13, 18, 27 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griffin.

With respect to claims 12 and 27 Griffin does not disclose specifically that the method of inputting an alternative symbol includes receiving input requesting a second list of one or more alternative symbols, but it would have been obvious to one of ordinary skill in the art at the time when the invention was made that the functionality of the key described in col. 4, lines 1-22, can be added to any other key of a keyboard, because as taught by Griffin this would permit a larger number of key entries on a small keyboard (col. 3, lines 1-15).

With respect to claims 3, 18 and 30 Griffin teaches selection of alternate symbols for use in a particular language, wherein the needed character is selected by scrolling the wheel while holding base key. It would have been obvious to one of ordinary skill in the art at the time when the invention was made that if a user works in a certain language, then the keyboard has to be set

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in that preferred language, and therefore a character displayed next time after choosing previous character from a list of character choices with the scroll wheel should belong with the same language and has to be displayed first in sequence of characters obtained by rotating the wheel.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chu et al., US PUB 2002/0097227 A1 teaches displaying sets of alternative symbols.

Griffin et al., US 6,396,482.

Madan et al., US 5,496,992, teaches displaying tables of alternative symbols for setting particular key mode for input device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Eisen whose telephone number is **(703) 306-2988**. The examiner can normally be reached on M-F (9:00 a.m. - 4:00 p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard A. Hjerpe can be reached on **(703) 305-4709**.

Any response to this action should be **mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or **faxed to:**

(703) 872-9314 (for Technology Center 2600 only).

Hand-delivered responses should be **brought to:** Crystal Park Two, 2121 Crystal Drive, Arlington, Virginia, Sixth Floor Receptionist.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be **directed to**: Technology Center 2600 Customer Service Office, whose telephone number is (703) 306-0377.

A handwritten signature in black ink, appearing to read 'Alexander Eisen', with a stylized flourish at the end.

Alexander Eisen
December 6, 2003